

**STATEMENT OF THE SUBSTANCE OF THE INTERVIEW
UNDER 37 C.F.R. § 1.133(b)**

The undersigned participated in a telephonic interview with Examiners J. Schwartz and D. Bost on May 2, 2011 (no exhibits were provided). The undersigned discussed the features explicitly stated in the claims as they were being applied in the cited references. In particular, the undersigned emphasized that the claims include very specifically recited features which are not found in the descriptions of the cited art. The undersigned gratefully acknowledges the participation of the Examiners in the telephonic interview.

REMARKS

Applicants request that the Examiner update the title in PAIR to read "DATA TRANSMISSION METHOD, SYSTEM, BASE STATION, SUBSCRIBER STATION, DATA PROCESSING UNIT, COMPUTER PROGRAM PRODUCT, COMPUTER PROGRAM DISTRIBUTION MEDIUM AND BASEBAND MODULE" as amended by the Preliminary Amendment filed October 12, 2005.

The Examiner rejected claims 17, 18, 24, 25, 56, 58-62, 64-68, and 70-73 under 35 U.S.C. §103(a) as being unpatentable over IEEE Std 802.16-2001, in view U.S. Patent No. 6,272,117 to Choi *et al.* (hereinafter, Choi), the Background of the instant application (hereinafter, Background), U.S. Patent No. 6,317,234 to Quayle (hereinafter, Quayle), U.S. Patent Application Publication No. 2003/0032427 to Walsh *et al.* (hereinafter, Walsh) and U.S. Patent Application Publication No. 2002/0080816 to Spinar *et al.* (hereinafter, Spinar).

By this amendment, Applicants amend claims 17, 25, 56, 58, 59, 61, 64, 65, 66-68, 71 and 73 to more clearly define the features of these claims and/or improve form, cancel claims 18, 24, 70 and 72 without prejudice or disclaimer. Support can be found at least at paragraphs [0015], [0044], and [0067]. No new matter has been added. Claims 17, 25, 56, 58-62, 64-68, 71, and 73 are currently pending.

The Examiner rejected claims 17, 18, 24, 25, 56, 58-62, 64-68, and 70-73 under 35 U.S.C. §103(a) as unpatentable over IEEE in view of Choi, Background, Quayle, Walsh and Spinar. Applicants respectfully traverse this rejection.

As stated in MPEP §2141.02 and §2143.03, a proper rejection under 35 U.S.C. §103(a) must be based on a consideration of whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art at the time of invention. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). Contrary to this requirement, the combination of the six cited references appear to have been assembled in a manner akin to the creation of Dr. Frankenstein's monster. The Office has apparently unearthed numerous unrelated elements from these references based an inventory list generated from the language of the instant claims and stitched these unrelated elements together to allegedly recited the claimed subject matter. This haphazard assemblage demonstrates a lack of proper concern or consideration for whether the assembled elements would function in a manner consistent with the claimed subject matter as is required for a proper rejection under 35 U.S.C. §103(a). Just as Dr. Frankenstein's monster was an abomination because of Dr. Frankenstein's failure to properly consider whether the various body parts he had assembled could properly form a functioning person, the Office's proffered rejection cannot stand because the elements assembled from the cited references merely skirt

around the claimed subject matter without providing the requisite rationale that would have caused one of ordinary skill in the art to see a benefit or other motivation to create the claimed subject matter. See *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1383, 231 USPQ 81, 93 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987).

Claim 17 recites an apparatus comprising:

- at least one processor;
- at least one memory containing executable instructions which when executed performs operations comprising:
 - receiving at least one of a plurality of capacity request messages from a subscriber station;
 - granting a transmission capacity to the subscriber station;
 - transmitting a capacity grant message to the subscriber station;
 - monitoring the at least one of the plurality of capacity request messages received from the subscriber station, capacity grant message sent by a base station, and a data transmission received from the subscriber station,
 - wherein the at least one of the capacity request messages comprises an aggregate capacity request message comprising information based on a previous capacity request message sent by the subscriber station; and
 - determining whether a mismatch exists between the granted transmission capacity and the data transmission received from the subscriber station based on information included in the aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station.

Claim 17 includes the features "determining whether a mismatch exists between the granted transmission capacity and the data transmission received from the subscriber station based on information included in the aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station." For at least the reasons given below, these features are not disclosed or suggested in IEEE and Choi whether taken alone or together. This deficiency is not cured by Background, Quayle, Walsh and Spinar, nor does the Examiner allege

that they do. Moreover, on page 3 of the Final Office action, the Examiner appears to improperly equate Choi's collision avoidance in a radio communication channel with the capacity mismatch as further described below.

IEEE discloses wireless communications in accordance with WiMAX but fails to cure the above noted "determining whether a mismatch exists" feature as recited in claim 17. Choi discloses a network access protocol named digital sensing multiple access with request-to-send and clear-to-send (DSMA/RC) which improves the over-the-air communications channel utilization rate and transmission performance (column 3, lines 19-26), and states:

In the two-way wireless data network described above, wireless data terminals compete for the uplink bandwidth. Collisions resulting from simultaneous transmissions by two or more wireless data terminals can occur to significantly reduce the channel utilization rate. For instance, packet collisions are very common under the ALOHA protocol because wireless data terminals transmit without regard to channel availability. Collision avoidance schemes, such as the variable speed retry scheme described above, increase channel utilization.

Choi, at column 3, lines 1-16.

In particular, Choi's DSMA/RC reduces collisions in the over-the-air communications channel. See, e.g., Choi at column 3, lines 27-29. Because Choi merely teaches avoiding radio collisions, Choi does not teach "determining whether a mismatch exists," feature as recited in claim 17.

In contrast to Choi's radio collision avoidance mechanism, the "mismatch" recited in claim 17 represents a mismatch between the data capacity granted by the base station and data sent by, or received from, the subscriber station (e.g., additional data at the subscriber station is ready to send to the base station for which no capacity has been granted by the base station). The mismatch is resolved to enable data at the subscriber station to be sent to the base station. Indeed, a skilled artisan would recognize that a mismatch between the granted data capacity and the data

received from the subscriber station is not at all the same as Choi's radio collisions in the over-the-air communications channel.

On page 2 of the Final Office Action, the Examiner asserts, "Applicants' arguments as to what is to be avoided through the avoidance technique reads more like an intended purpose"

Applicants respectfully disagree. **It is a clear error to ignore express language in a claim.**

However, to clarify that a mismatch is determined based on information including an aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station, Applicants have amended claim 17 to include, "determining whether a mismatch exists between the granted transmission capacity and the data transmission received from the subscriber station based on information included in the aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station."

For at least the reasons noted above, IEEE and Choi fail to disclose or suggest at least the following feature of claim 17 "determining whether a mismatch exists between the granted transmission capacity and the data transmission received from the subscriber station based on information included in the aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station."

Quayle describes user equipment sending data to a head-end station via a buffer. The user equipment sends a request for capacity based on whether the buffer is full or not. The fullness of the buffer depends on the rate at which data arrives at and leaves the buffer. The buffer, at any instant, may comprise data that it received in previous requests. Rather than

provide any information regarding an aggregate capacity request message of a subscriber, Quayle merely provides information on a buffer and the rate at which the buffer is emptied. **In short, Quayle discloses rate, not capacity.** As such, Quayle is silent about at least the feature of claim 17 including “determining whether a mismatch exists between the granted transmission capacity and the data transmission received from the subscriber station based on information included in the aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station.”

Spinar discloses a method and system for adaptively obtaining bandwidth allocation requests and in particular efficiently allocating bandwidth between base stations and users in a wireless communication system. Spinar discloses a family of polling techniques to make efficient use of the total bandwidth available to a wireless system. Spinar, Abstract and paragraph [0067]. Making efficient use of bandwidth is akin to making efficient use of data rate. **Similar to Quayle, Spinar discloses rate not capacity.** As such, Spinar is silent about at least the feature of claim 17 including “determining whether a mismatch exists between the granted transmission capacity and the data transmission received from the subscriber station based on information included in the aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station.”

Walsh discloses dynamic queue depth management in a satellite terminal for bandwidth allocations in a broadband satellite communications system but fails to cure the above noted deficiencies in IEEE, Choi, Quayle, and Spinar. While Background discloses QoS, Background does not cure the aforementioned deficiencies of IEEE, Choi, Quayle, Walsh and Spinar.

In view of the foregoing, neither IEEE, Choi, Background, Quayle, Walsh nor Spinar discloses or suggests at least the features of claim 17 including “determining whether a mismatch exists between the granted transmission capacity and the data transmission received from the subscriber station based on information included in the aggregate capacity request message received from the subscriber station, the capacity grant message sent to the subscriber station, and the data transmission received from the subscriber station.” Therefore, claim 17 is allowable over IEEE, Choi, Background, Quayle, Walsh and Spinar whether these references are taken individually or in combination, and the rejection of claim 17 under 35 U.S.C. §103(a) should be withdrawn.

Furthermore, both IEEE and Choi fail to disclose “wherein the at least one of the capacity request messages comprises an aggregate capacity request message comprising information based on a previous capacity request message sent by the subscriber station,” as recited in claim 17. Quayle fails to cure this deficiency of IEEE and Choi as further described below.

As noted above, Quayle discloses rate, not capacity. Thus, it would be a clear error to equate Quayle's rate information to a capacity request message. Moreover, Background, Walsh, and Spinar do not cure the aforementioned deficiencies of IEEE, Choi, and Quayle. Nor does the Examiner allege that they do.

In view of the foregoing, neither IEEE, Choi, Background, Quayle, Walsh nor Spinar discloses or suggests at least the following feature of claim 17 “wherein the at least one of the capacity request messages comprises an aggregate capacity request message comprising information based on a previous capacity request message sent by the subscriber station.” Therefore, claim 17 is allowable over IEEE, Choi, Background, Quayle, Walsh and Spinar whether these references are taken individually or in combination, and for this additional reason

the rejection of claim 17 under 35 U.S.C. §103(a) should be withdrawn.

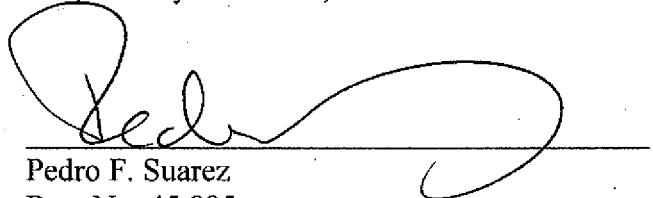
Independent claims 24, 25, 56, 61, 64, and 66 include similar features as noted above with respect to claim 17. For at least the reasons noted above with respect to claim 17, independent claims 24, 25, 56, 61, 64, and 66 as well as claims 18, 58-60, 62, 65, 67, 68, 71-73, and 76 at least by reason of their dependency, are allowable over IEEE, Choi, Background, Quayle, Walsh and Spinar, whether these references are taken individually or in combination, and the rejection of those claims under 35 U.S.C. §103(a) should be withdrawn.

CONCLUSION

On the basis of the foregoing amendments, the pending claims are in condition for allowance. It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

Applicant is concurrently filing herewith a Petition for a one-month extension of time with the requisite fee. No additional fees are believed to be due, however the Commissioner is hereby authorized to charge any additional claim fees and any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 39700-768001US/NC39727US. If there are any questions regarding this reply, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,


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